

Abstract

The present study is based on marine physical and biological observations since 1961. The data on zooplankton has been collected since 1963 in the vicinity of the White Sea Biological Station of the Zoological Institute, RAS, (Chupa Inlet of Kandalaksha Bay, Cape Kartesh). Temperature and salinity measurements have been carried out since 1961. The study describes the seasonal and long-term dynamics of oceanographic parameters and plankton abundance, giving special consideration to long-term trends. The effects on plankton due to extreme oceanographic conditions are estimated, and the anomalies of plankton seasonal dynamics during cold and warm, high- and low-salinity years are shown. The influence of long-term salinity and temperature variations on the plankton community is examined. The temperature optima of dominant plankton species are determined according to the long-term dynamics of their abundance.